

Frequently Asked Questions About Fire in Tennessee

1. How many fires occur in Tennessee annually?
In 2001, Tennessee fire departments reported **11,935 fires**. The 1997-2001 average was **14,201 per year**. It is important to note that the data reported do not represent 100% of the fires that occurred in the state. Rather they are the sum of fires reported to the Tennessee Fire Incident Reporting System (TFIRS). The percentage of department participation varies from county to county and from year to year.
2. What is the Tennessee Fire Incident Reporting System (TFIRS)?
TFIRS is an incident-based data collection system that populates computer databases with fire and non-fire calls. Although TFIRS cannot be used to estimate totals, it can be used to calculate proportions such as the percent of fires caused by heating and the percent of homes without smoke detectors. The sample of fires is so large and well distributed geographically and by size of community that the percentages observed in the database probably mirror the true proportion in the total universe of fires. We can analyze when, where and how fires occur, who is most at risk from fire, and the general impact of fire on the citizens of our state.

Participating departments fill out incident and casualty reports as alarms occur and forward these to the State Fire Marshal. Periodically, the combined statewide data is exported to the U. S. Fire Administration's National Fire Incident Reporting System (NFIRS) database.
3. How many departments report to TFIRS?
In 2001, **262** departments reported to TFIRS. The 1997-2001 average was **206**. Based on the population protected by the reporting departments, the data represents about half the state's population.
4. How can a department join TFIRS? Is there any cost?
Contact the TFIRS Coordinator at (615) 532-5753 or at Dennis.Mulder@state.tn.us. Two options are available. TFIRS Version 4.0, introduced in 1986, is paper-based; Version 5.0, introduced in 1999, is computer-based. All forms, handbooks, and software are provided free of charge. Departments with computers must key reports locally and transmit their data to the state. Departments without computers may report on paper forms which must be forwarded to the state for keying.
5. How many people die from fire in Tennessee each year?
In 2000, **142** civilians (non-firefighters) died from fire in Tennessee. The 1996-2000 **average** was **146**. These numbers are obtained by counting the number of death certificates in which the cause of death was coded as due to fire or flames. In 2001 two Tennessee firefighters were killed in the line of duty. The 1992-2001 **average** was **2** firefighter deaths per year. The number of Tennesseans dying in fires annually is the same as if a fully-loaded Boeing 737 crashed every year, killing all aboard.

6. How does Tennessee's fire problem rank with other states?
In 1998, Tennessee was the 17th largest state in population. Unfortunately, the state ranked **7th** by number of fire deaths. Worse than the fire death toll were fire deaths per capita. Tennessee had the **fourth highest** fire death rate (23.6 deaths per million). And the 1994-98 fire death rate (26.9) was **third highest** in the nation.
7. What are the three leading causes of residential fires in Tennessee?
Based on 1998-2000 data, the top three causes of residential fires were **cooking** (17.4%), **arson** (11.1%), and **electrical** distribution equipment (8.8%). Electrical distribution equipment includes wiring, outlets, cords, plugs and lighting fixtures as heat sources.
8. What are the three leading causes of fatal residential fires in Tennessee?
Based on 1998-2000 data, the top three causes of fatal residential fires were **arson** (9%), **electrical** (8.1%), and **heating** equipment (7.2%).
9. Which age groups are most vulnerable to fire in Tennessee?
People 65 and older and children under 5 have the highest greatest fire death rates. Although they are only 12.4% of the state's population, **seniors** accounted for **30 %** of fire deaths in 2000. Children under 5 are just **6.6%** of the population, but make up **11.1%** of fire fatalities.
10. Do smoke detectors really save lives?
Yes. The life-saving effectiveness of smoke detectors can also be measured by comparing the death rates of home fires with and without detectors. Ten years of state fire data shows that the rate without detectors is 8.6 deaths per 1000 fires. The rate with detectors present is only 4.5 deaths per 1000, a **48%** reduction. In other words, a working smoke detector cuts your chances of dying in a home fire by half.
11. How widespread are smoke detectors?
Smoke detectors were not present in **71%** of fatal fires for which detector performance was reported. No detector was present in **49%** of reported residential fires.
12. How much property does fire destroy each year in Tennessee?
In 2001, **\$64,903,968** of dollar loss was reported to TFIRS. As in the case of fires, the data reported does not represent 100% of the property loss due to fire. Rather it is the sum of dollar loss reported to the Tennessee Fire Incident Reporting System (TFIRS). The 1997-2001 average was **\$89,095,558**.
13. How many firefighters protect Tennessee?
In 2000 there were at least **22,885** firefighters in Tennessee. Because new volunteers join and new career members are hired and retire each year, the total number varies annually.
14. How many fire departments serve the state?
In 2000 there were at least 652 departments. The number of departments varies from year

to year because new volunteer departments are constantly forming, merging, or disbanding.

15. How many firefighters are volunteers?
In 2000, **14,638** (64%) were volunteers. **1,610** (7%) were paid per call or part-time.
16. How many are career firefighters?
In 2000, **6,638** (29%) were full-time paid firefighters.
17. How many departments are volunteer? What share of the population do they protect?
In 2000, **519** (80 %) were 100% volunteer and protected **34%** of the state population.
18. How many are career only departments? What share of the population do they protect?
In 2000, **66** (about 10%) of departments had only full-time members. Career departments protect **52%** of Tennesseans.
19. What is a combination department? How many are they and what share of the population do they protect?
A combination department has both volunteer and paid members. In 2000 combination departments totaled **67** or about 10%. Combination departments protect about **14%** of the population.
20. What are ISO ratings? How does my community rating affect me?
The Insurance Services Office (ISO), a private organization headquartered in Jersey City, NJ, grades fire departments for insurance companies. The ISO can be contacted at 800-888-4476 or at www.iso.com

The ISO analyzes water systems, emergency communications, and fire department operations to determine a general rating. The general rating is plugged into a formula that considers the location of the nearest fire station and hydrant. An ISO rating is used to determine your house insurance premium. Ratings go from a Class 1 (the best) to a Class 10(unprotected), so the lower the better.